Congestion Management

Example of an HOV lane.

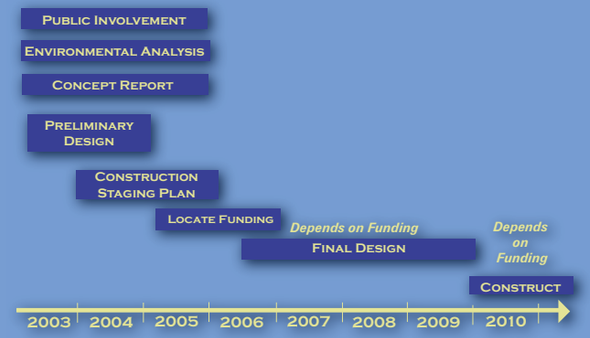
There is no single solution to congestion. A High Occupancy Vehicle Lane (HOV) is one tool.

The primary purpose of an HOV lane is to reduce congestion by using the capacity of the freeway more efficiently. HOV lanes are typically restricted to vehicles carrying two or more people. This increases the number of people who can travel on the roadway at the same time. The HOV lane is designed to offer a travel time savings and a more predictable travel time.

The intent of HOV lanes is to offer drivers a cost effective choice so that a significant number of commuters will choose alternative modes of transportation rather than driving alone. This provides an incentive for carpooling and transit options.

The HOV lane concept has been used in many states, but is new to Idaho. As part of this project, a study will be done to assess the feasibility of future HOV lanes on this segment of I-84.

Schedule



The concept report will identify improvements that need to be made through the year 2035. It will identify options for the interchanges at Orchard, Vista, Broadway and Gowen and will determine the number of lanes needed on I-84 between the Orchard and Gowen interchanges.

Preliminary design activities include surveying, traffic projections, right-of-way determination, interchange layout, highway engineering and cost estimates.

The construction staging plan will determine the order of construction for each portion of the project. The plan will identify the most effective way to construct the project while keeping traffic flowing along the corridor.

A complete environmental analysis is being done to follow the guidelines set forth in the National Environmental Policy Act. The environmental document will evaluate issues that may arise as a result of the project. The environmental issues that are addressed in the document include noise impacts, air quality, effects on surrounding neighborhoods and businesses, and impacts to wildlife and plant habitat. An approved environmental document is necessary to qualify for federal funding.

When will construction begin?

A construction date has not been determined. Several factors, including costs and availability of funding, will determine when the project can be built. The activities being performed during this phase of the project design will help the project team identify a construction timeline.

Submit comments in writing to:

Idaho Transportation Department
Public Involvement Coordinator
P.O. Box 7129
Boise, ID 83707-1129
gsmith@itd.state.id.us

Contacts

Sue Sullivan
Project Manager
Idaho Transportation Department
(208) 334-8300

Pete Szobonya
Project Manager
Washington Group International
(208) 386-6018

Gwen Smith
Public Involvement Coordinator
Idaho Transportaion Department
(208) 334-4444

I-84 Orchard to Gowen

Project Overview

In 2001, the Idaho Transportation Department completed a feasibility study for I-84 from Orchard to Gowen that identified improvements needed to keep up with projected growth. The study recommends replacing the existing pavement, widening the interstate and replacing the existing interchanges at Orchard, Vista, Broadway and Gowen.

Using the 2001 feasibility study as a platform, the department is working to complete several key activities to design a project that addresses the future traffic needs on I-84 from Orchard to Gowen. These activities include a concept report, preliminary design, a construction staging plan and a complete environmental analysis.

Traffic

A traffic study has been conducted as part of the I-84 Orchard to Gowen project. The purpose of the study is to forecast the number of vehicles the roadway will need to accommodate in the future. By combining current traffic counts, population growth rates and other anticipated roadway developments, the study estimates the number of vehicles that will travel along I-84 between Orchard and Gowen each day. It also estimates how effectively each alternative can handle the anticipated traffic.

The model used to forecast the traffic volumes assumes about a fourth of the travelers will use alternative transportation methods. This is in accordance with the Community Planning Association of Southwest Idaho's Long Range Transportation Plan goal.

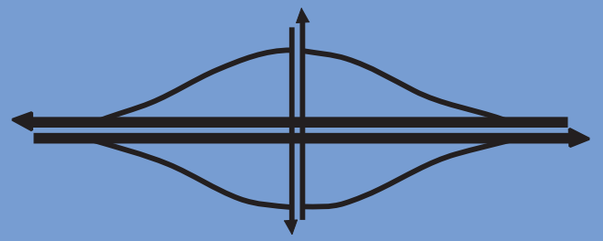
The traffic study concluded that in order to accommodate traffic volumes in 2035 a minimum of four lanes in each direction are needed on I-84 between Cole Road and Broadway Avenue. Westbound traffic in this segment is higher than eastbound. Five lanes will be evaluated for the westbound side.

In addition, auxiliary lanes (extending the on and off ramps to meet) connecting Orchard to Vista Interchange, and Vista to Broadway Interchange, are recommended.

Between Broadway and Gowen Interchanges, three lanes in each direction are needed. No additional lanes are needed east of Gowen Road.

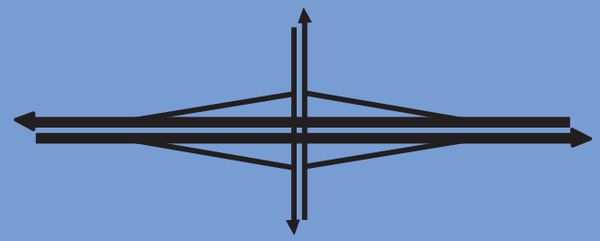
Types of Interchanges

Conventional Diamond



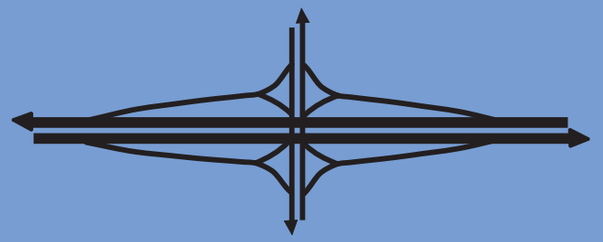
Considerations
- Lowest structure cost
- Most common (familiar to motorists)
- Easiest to widen bridge and ramps for future needs
- Can accommodate ped/bike traffic
- Usually requires more right-of-way
- Can adapt to ramp metering

Tight Diamond



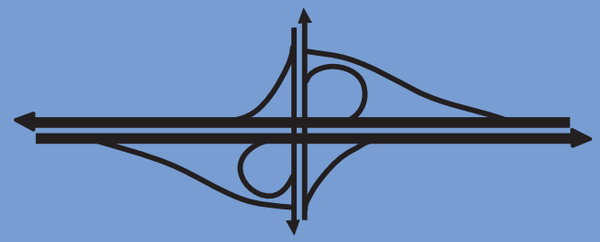
Considerations
(as compared to Conventional Diamond)
- Mid-range structure cost
- Requires less right-of-way
- Slightly harder to widen bridges and lanes for future needs
- Can accommodate ped/bike traffic
- Requires precise signal timing
- Can require a wider bridge for left turn lanes

Single Point



Considerations
(as compared to Conventional Diamond)
- Likely the highest structure cost
- Works well where right-of-way is restricted
- Works well where there are high volumes of opposing turning traffic
- Ped/bike traffic is not easily accommodated
- Center pier limits future use of median space

Partial Cloverleaf



Considerations
(as compared to Conventional Diamond)
- Second lowest structure cost
- Can handle more traffic because of the loop ramp
- Loop ramp can decrease delay times
- Loop ramps require more right-of-way
- Ped/bike traffic is not easily accomodated at the loop